National Institute of Environmental Health Sciences

Disease emergence from global climate and land use change

Author(s): Patz JA, Olson SH, Uejio CK, Gibbs HK
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Abstract:

Climate change and land use change can affect multiple infectious diseases of humans, acting either independently or synergistically. Expanded efforts in empiric and future scenario-based risk assessment are required to anticipate problems. Moreover, the many health impacts of climate and land use change must be examined in the context of the myriad other environmental and behavioral determinants of disease. To optimize prevention capabilities, upstream environmental approaches must be part of any intervention, rather than assaults on single agents of disease. Clinicians must develop stronger ties, not only to public health officials and scientists, but also to earth and environmental scientists and policy makers. Without such efforts, we will inevitably benefit our current generation at the cost of generations to come.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Security, Glacier/Snow Melt, Precipitation, Sea Level Rise, Temperature

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones

Food/Water Quality: Other Water Quality Issue

Water Quality (other): Water temperature

Food/Water Security: Agricultural Productivity, Food Access/Distribution, Livestock Productivity, Nutritional Quality

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Urban, Other Geographical Feature

Other Geographical Feature : Forests

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease, Zoonotic Disease

Foodborne/Waterborne Disease: Campylobacteriosis, Cholera, Cryptosporidiosis, E. coli, Leptospirosis, Schistosomiasis, Other Diarrheal Disease

Vectorborne Disease: Flea-borne Disease, Fly-borne Disease, Mosquito-borne Disease, Tick-borne Disease

Flea-borne Disease: Plague

Fly-borne Disease: Leishmaniasis, Onchocerciasis, Trypanosomiasis

Mosquito-borne Disease: Chikungunya, Dengue, Dirofilariasis, Malaria, Rift Valley Fever, West Nile Virus, Yellow Fever

Tick-borne Disease: Lyme Disease

Zoonotic Disease: Hantavirus Pulmonary Syndrome

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified